

**Notice of Allowability**

Application No.

10/604,994

Applicant(s)

KIRIHATA ET AL.

Examiner

Art Unit

Connie C. Yoha

2827

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 5/31/05.
2. ☒ The allowed claim(s) is/are 1-13 and 15-19.
3. ☒ The drawings filed on 29 August 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

  
CONNIE C. YOHA  
PRIMARY EXAMINER

## **DETAILED ACTION**

### ***Response to Arguments***

1. Examiner took notice of the remarks and amendments made by applicant filed on 5/31/05.

### ***Response to Amendment***

2. This office action is in response to Amendment filed on 5/31/05.  
Claim 1-5, 8, and 12 are amended.  
Claim 14 is canceled.  
Claim 19 is newly added.
3. Claims 1-13 and 15-19 are pending.

### ***Allowable Subject Matter***

4. Claims 1-13 and 15-19 are allowed.
5. Claims 1-13 and 15-19 are considered allowable since prior art made of record and considered pertinent to the applicant's disclosure does not teach or suggest the claimed limitations having I combination with other features, a means for driving a write bitline in said first block and a write bitline in said second block in the same direction to create said common mode noise in a read bitline in said first block and a read bitline in said second block. Prior art also does not disclose wherein a voltage swing on the write bitline couples an equivalent noise into the read bitline segments connected to the

first terminal of said differential amplifier, and the read bitline segment connected to the second terminal of said differential amplifier for each column, thus transforming the noise into said common mode noise which is rejected by said differential sense amplifiers. Also, prior art does not disclose wherein the re-entrant connections link a write bitline driver to the write bitline in one block and a second write bitline driver to the write bitline in a second block; wherein the write bitline drivers operate for each column in a way that the output voltage of the first driver is of the same magnitude and 180 degree out-of-phase from the output voltage of the second driver, and wherein when the voltage on the write bitline changes, no noise is coupled from the write bitlines to the read bitlines.

### ***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to whose telephone number is (571) 272-1799. The examiner can normally be reached on Mon. - Fri. from 8:00 A.M. to 5:30 PM. The examiner's supervisor, David Nelms, can be reached at (571) 272-1787. The fax phone number for this Group is (703) 872-9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-0956.

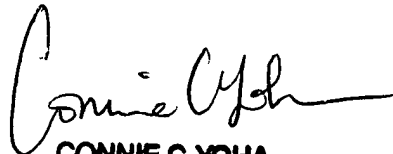
7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.  
For more information about the PAIR system, see <http://pair-direct.uspto.gov> should you  
have questions on access to the Private Pair system, contact the Electronic Business  
Center (EBC) at 866-217-9197 (toll-free).



C.Yoha

June 2005



CONNIE C. YOH  
PRIMARY EXAMINER